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,	Substitute for form 1449/PTO			Complete if Known		
				Application Number	10/582,599	
	INFORMATIO	וח וא	SCI OSLIBE	Filing Date	June 09, 2006	
	STATEMENT			First Named Inventor	ROGER A. KAUTZ, et al.	
	STATEMENT	ο г	AFFLICANT	Art Unit	1797	
	(Use as many sheets as necessary)		Examiner Name	SALLY A. SAKELARIS		
Sheet	1	of	4	Attorney Docket Number	NU-642XX	

			U. S. PATENT		
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/S.S./		us- 3,479,141	11-18-1969	Smythe, et al.	
S.S./		us- 6,372,353	04-16-2002	Karger, et al.	
/S.S./		us- 6,524,456	02-25-2003	Ramsey, et al.	
/S.S./		us- 7,129,091	10-31-2006	Ismagilov, et al.	
/S.S./		us- 2006/0108012	05-25-2006	Barrow, et al.	
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		FOREI	GN PATENT DOC	UMENTS		
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		ADLER, H. et a1., "Continuous Extraction of Body Fluid				
(0.0.1		Samples, Including Whole Blood, Plasma and Urine";				
/S.S./		Advances in Automated Analysis, Technicon International				
		Congress, Vol. IX; Mediad Inc., Tarrytown, NY; (1973), pp. 81-85				
		BEHNIA, B. and WEBB, A.G.; "Limited-Sample NMR				
/S.S./		Using Solenoidal Microcoils, Perfluorocarbon Plugs, and				
/5.5./		Capillary Spinning"; Analytical Chemistry; (1998); 70(24): 5326-5331				
		CURCIO, M and ROERAADE, J.; "Continuous Segmented-				
/S.S./		Flow Polymerase Chain Reaction for High-Throughput				
10.0.1		Miniaturized DNA Amplification"; Anal. Chem.; (2003) 75: 1-7				
/S.S./		ELDRIDGE, G. R, et a1.; "High-Throughput Method for the .				
70.0.		Production and Analysis of Large Natural Product Libraries				
		for Drug Discovery"; Anal. Chem.; (2002), 74: 3963-3971				
		KAUTZ, R. A., et al.; "Sample Concentration and Separation				
		for Nanoliter-Volume NMR Spectroscopy Using Capillary				
/S.S./		Isotachophoresis"; J. Am. Chem. Soc.; (2001); 123: 3159-				
		3160				
		KEIFER, P.A., "Flow NMR Applications in Combinatorial				
/S.S./		Chemistry"; Current Opinion in Chemical Biology; (2003a);				
		7(3): 388-394				
10.01		KEIFER, P.A., "Flow Injection Analysis NMR (FIA-NMR):				
/S.S./		A Novel Flow NMR Technique That Complements LC-NMR				
		and Direct Injection NMR (DI-NMR)"; Magnetic Resonance				
		in Chemistry; (2003b); 41(7): 509-516				

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/S.S./		KEIFER, P.A., et al., "Direct-injection NMR (DI-NMR): A Flow NMR Technique for the Analysis of Combinatorial Chemistry Libraries". J. of Comb. Chem.; (2000); 2(2): 151-171	
/S.S./		LACEY, M.E., et al.; "H NMR Characterization of the Product from Single Solid-Phase Resin Beads using Capillary NMR Flow Probes"; Journal of Magnetic Resonance; (2001); 153(2): 215-222	
/S.S./		MACNAUGHTAN, M. A., et al.; "High-Throughput Nuclear Magnetic Resonance Analysis Using a Multiple Coil Flow Probe"; Anal. Chem.; (2003); 75(19): 5116-5123	
/S.S./		NORD, L. and KARBERT, B.; "Extraction Based on the Flow-Injection Principle. Part 6. Film Formation and Dispersion in Liquid-Liquid Segmented Flow Extraction Systems"; Analytica Chimica Acta; (1984);164: 233-249	
/S.S./		OLSON D. L. et a1.; "Microflow NMR: Concepts and Capabilities"; Analytical Chemistry.; (2004); 76(10) 2966- 2974	
/S.S./		OLSON, D. L. et al.; "Nanoliter-Volume ¹ H NMR Detection Using Periodic Stopped-Flow Capillary Electrophoresis"; Anal. Chem.; (1999); 71(15): 3070-3076	
/S.S./		OLSON, D.L. et al.; "High-Resolution Microcoil ¹ H-NMR for Mass-Limited, Nanoliter-Volume Samples"; Science, (1995); 270(5244): 1967-70	
/S.S./		PATTON, C.J. and A. P. Wade, "Continuous Flow Analyzers"; Analytical Instrumentation Handbook, 2'nd ed. rev., G.W. Ewing, ed., Marcel Dekker, New York; (1997) pp. 152-155 and 207-212	

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Reaction Networks in Time"; Angew. Chem. Int. Ed.; (2003a); 42(7): 768-772 SONG, H., ISMAGILOV, R.F.; "Millisecond Kinetics on a Microfluidic Chip Using Nanoliters of Reagents"; J. Am. Chem. Soc.; (2003b); 125(47): 14613-14619 WEBB, A. G., GRANT, S.C.; "Signal-to-Noise and Magnetic Susceptibility Trade-offs in Solenoidal Microcoils for NMR"; J. Magn. Reson., Ser. B; (1996); 113: 83-87
Microfluidic Chip Using Nanoliters of Reagents"; J. Am. Chem. Soc.; (2003b); 125(47): 14613-14619 WEBB, A. G., GRANT, S.C.; "Signal-to-Noise and Magnetic Susceptibility Trade-offs in Solenoidal Microcoils for NMR"; J. Magn. Reson., Ser. B; (1996); 113: 83-87
Magnetic Susceptibility Trade-offs in Solenoidal Microcoils for NMR"; J. Magn. Reson., Ser. B; (1996); 113: 83-87
WOLTERS A.M. et al. "Microscale NMR": Anal.
Techniques; (2002a); 6: 711-716
WOLTERS, A. M et a1., "Capillary Isotachophoresis/NMR: Extension to Trace Impurity Analysis and Improved Instrumental Coupling"; Anal. Chem.; (2002b); 74: 2306-2313
WOLTERS, A. M., et al.; "NMR Detection with Multiple Solenoidal Microcoils for Continuous-Flow Capillary Electrophoresis"; Anal. Chem.; (2002c); 74: 5550-5555
TICE, J.D., "Formation of Droplets and Mixing in Multiphase Microfluidics at Low Values of the Reynolds and the Capillary Numbers"; Langmuir; (2003); 19: 9127-9133

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